

Rick Woodard, 08:22 AM 1/28/98 , Additional Comments on Issues

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Date: Wed, 28 Jan 1998 08:22:16 -0800
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Subject: Additional Comments on Issues for January 28 Meeting
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>
>Via e-mail
> January 27, 1998
>Judy Heath
>CALFED Bay-Delta Program
>Water Quality Technical Group
>1416 Ninth Street; Ste 1155
>Sacramento, CA 95814

>Dear Judy:

>
> Responding to your January 13, 1998 memorandum concerning
the Water Quality
>Parameter Assessment Team meeting on January 28, 1998 in which
you present a
>revised agenda, I wish to provide the following comments. Much
of the
>material presented in your January 13, 1998 memorandum had been
previously
>distributed in an undated mailing to the Parameter Assessment
Team
>participants covering the December 3, 1997 meeting. I have
provided detailed

Printed for Judy Heath <jheath@water.ca.gov>

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>comments to Rick Woodard, with a copy to you, on a number of aspects of the
>December 3, 1997 meeting.
>
>Chromium VI
>
> I assume that since chromium VI has already been reviewed by the PAT that
>there is no need to fill out the forms provided with your January 13 memo on
>this constituent.
>
>Request Forms
>
> The Request Form for Addition or Deletion to the CALFED Water Quality
>Parameter of Concern List appears to be appropriate provided that those
>completing the form provide detailed information on the PROBLEM.
>
> With respect to the "Parameter Characteristics," the fourth item, "The water
>quality problem caused by the parameter is generally recognized..." should
not
>be a major issue. The chromium VI problem is not generally recognized.
>Problems should be brought forth and allowed to stand on their own merit.
>Whether an agency or the scientific community generally recognizes the
problem
>should not be an important issue.
>
> The third from last item, "Preponderance of data on the parameter shows
>concentrations exceed established criteria for the applicable medium..." is
>dangerous. We have already seen how CALFED management is using Long and
>Morgan sediment quality guidelines without proper public peer review.
>
> A characteristic that is not on this list that should be is "Accumulate
>within aquatic organism tissue (bioaccumulation) to levels that cause the
>organisms to be considered hazardous to higher trophic level

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organisms

>including man's use of the organism as food."

>

> Another characteristic that could be included that should be considered is

>impairing the aesthetic quality of resources, such as tastes and odors in

>fish. There are some constituents which, while not affecting water use

>directly, affect the use of the resources by causing the fish to have

>obnoxious odors.

>

> There are a number of Parameters of Concern already on the CALFED list

which,

>in my opinion, would not stand up to the scrutiny set forth in this type of

>review. It is for this reason that I have recommended that the Parameters of

>Concern all be subjected to the same degree of review and that this effort

not

>be restricted just to those that are to be added or deleted from the existing

>list.

>

> Attached to this January 13, 1998 memo is a "Summary of Common Programs"

>where the second bulleted item, "Water Quality" includes the terms

"pollutant"

>and "pollutants." To my knowledge, CALFED has never defined "pollutant."

Its

>management uses the term loosely to mean any chemical constituent.

>"Pollutant" should be explicitly defined in CALFED documents as those

>constituents which impair the designated beneficial uses of the CALFED

>jurisdiction waters. This would be in accord with Porter-Cologne and Clean

>Water Act definitions. Under these definitions, a "pollutant" is not a

>constituent that in some places at some times from some sources may be

adverse

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>to water quality. It is a constituent that has a high degree of potential to
>be specifically adverse to water quality within the Delta and its associated
>waters.
>
>January 28, 1998 Meeting Agenda
>
> In the Agenda for the January 28, 1998 meeting provided with your January 13,
>1998 memo, you have provided a list of parameters that are to be discussed.
>>From my experience, a number of these parameters, such as chromium VI, fall in
>a similar category as do a number of those already on the Parameters of Concern list, i.e. should be reliably monitored to determine whether there is
>the potential for a significant water quality problem. This monitoring should
>also include an evaluation of potential target values or, more appropriately,
>approaches for establishing load reductions of toxic - available forms of
>constituents.
>
> It is important that at the January 28, 1998 meeting a clear statement of
>what is going to be done with these target values be presented. The last time
>I heard anything on this was almost a year ago when at that time the Water
>Quality Technical Group was headed down a technically invalid path of
>conducting chemical constituent modeling to determine the load reductions that
>must occur to achieve the target values. With very few, possibly no
>exceptions, the degree of understanding of load of constituent - water quality
>impacts that exist within the Delta is so inadequate at this time that any

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>attempts to do modeling of the type that was discussed a year ago
to
establish
>appropriate loads will be a waste of money. Several years of
properly
>conducted, intensive work needs to be done on virtually all of
the parameters
>of concern before first, it is possible to define that there is a
real water
>quality problem associated with the parameter and second, define
a target
>value which could serve as a basis for establishing the load
reductions of
>those sources that contribute toxic, available forms of the
constituent to
the
>waterbody that is impacting the Delta's resources.
>
>MTBE
>
> Ange Werner of the Sierra Club has recommended that MTBE
be added to the
>Parameters of Concern. I have considerable familiarity with MTBE
as water
>pollutant and have accumulated literature beyond that referenced
by Ms.
Werner
>on this issue. It is my recommendation that MTBE, like a wide
variety of
>other parameters, be included with chromium VI as a potential
Parameter of
>Concern for which there is need for monitoring within the Delta
to determine
>whether its concentrations occur at sufficient levels to be a
threat to the
>aesthetic quality of drinking water, public health and aquatic
life. The
>problem of MTBE universally, thus far, are aesthetic quality,
i.e. tastes and
>odors, in water supplies. Contrary to the implications, there is
considerable
>information which indicates that it is not a significant threat
to public
>health or aquatic life. Yesterday, the American Water Works
Association
>newsletter announced that the US EPA has recommended MTBE levels
of 20 to 40
>ug/L in domestic water supplies based on objectionable tastes.

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According to
>the US EPA, these recommended values are "about 20,000 to 100,000
(or more)
>times lower than the range of exposure levels in which cancer or
noncancer
>effects were observed in rodent tests." I understand that copies
of the
>advisory and companion fact sheet can be downloaded from the
Internet at
><www.epa.gov/OST> or obtained by calling (800) 490-9198.
>
>Development of Target Values
>
> Attached to the undated materials on the December 3, 1997
meeting was a
>"Suggested Criteria for Developing Water Quality Targets." It is
stated that
>these materials were extracted from minutes, handouts and reports
by the
>Ecosystem, Agriculture, and Urban Subteams of the CALFED Water
Quality
>Program. This issue needs to receive a comprehensive review
since, as being
>developed now and discussed herein, CALFED is headed down a
technically
>invalid approach that could readily result in massive waste of
public and
>private funds chasing constituents because of an
inappropriately-selected
>criterion, such as the Long and Morgan sediment quality
guideline. CALFED
>Water Quality Program management and the various subteams have
included in
the
>list of water quality targets parameters that are not technically
valid, such
>as the National Academy of Science guidelines for tissue
concentrations. I
>have provided detailed discussions in previous correspondence as
to why those
>so-called guidelines are not guidelines. If the National
Academies of
Science
>and Engineering are asked whether those are valid guidelines that
are
>applicable today, as I have done, you will find that they are not
valid. In
>fact, they are unknown to the NAS technical staff responsible for

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addressing

>bioaccumulation of constituents in fish.

>

> The sediment targets listed involving Long and Morgan co-occurrence values

>are, as discussed in previous correspondence, not appropriate guidelines for

>CALFED programs. These so-called guidelines are based on obviously

well-known

>to be technically invalid approaches to estimate whether a constituent in a

>sediment is toxic. A far more reliable, readily implementable approach is to

>directly assess toxicity. This approach has been used since the late

1970s by

>the US EPA and Corps of Engineers in regulating contaminated sediments

>associated with dredging projects. It can and should be readily used in the

>Delta. No attempt should be made to use chemical concentrations in

sediments

>to estimate the critical concentrations of chemicals that are of concern

>because of their toxicity to aquatic life. There have been a number of

recent

>reviews of this issue, including those conducted by the US EPA and NOAA that

>have concluded that the use of the Long and Morgan values for estimating

>whether a chemical constituent in sediments is, in fact, toxic is about as

>reliable as flipping a coin. Over half the time, the Long and Morgan values

>have been found to be wrong when an unbiased set of data is used. The focus

>in the CALFED Delta Water Quality Management Program should be on chemical

>impacts, i.e. toxicity bioaccumulation, and where problems are found,

>determine the constituent(s) responsible for the toxicity/bioaccumulation.

>

> I look forward to the discussions that will be held on January 28, 1998.

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>Hopefully, this could be an important meeting to help set a more appropriate

>course for the CALFED Water Quality Management Program than has been

>formulated previously and apparently exists today.

>

>

yours,

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>

Lee

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Lee, PhD, DEE

>Copy to:

R. Woodard

>

L. Winternitz

>

L. Snow

>

>GFL:oh

>

Sincerely

G. Fred

G. Fred